



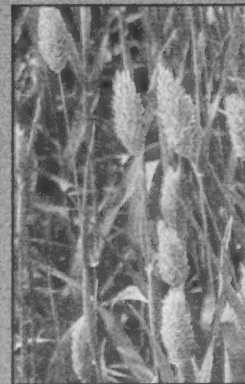
Black Soil Zone



Brown Soil Zone



Dark Brown Soil Zone



Specialty Crops

# CROP PLANNING GUIDE 2015



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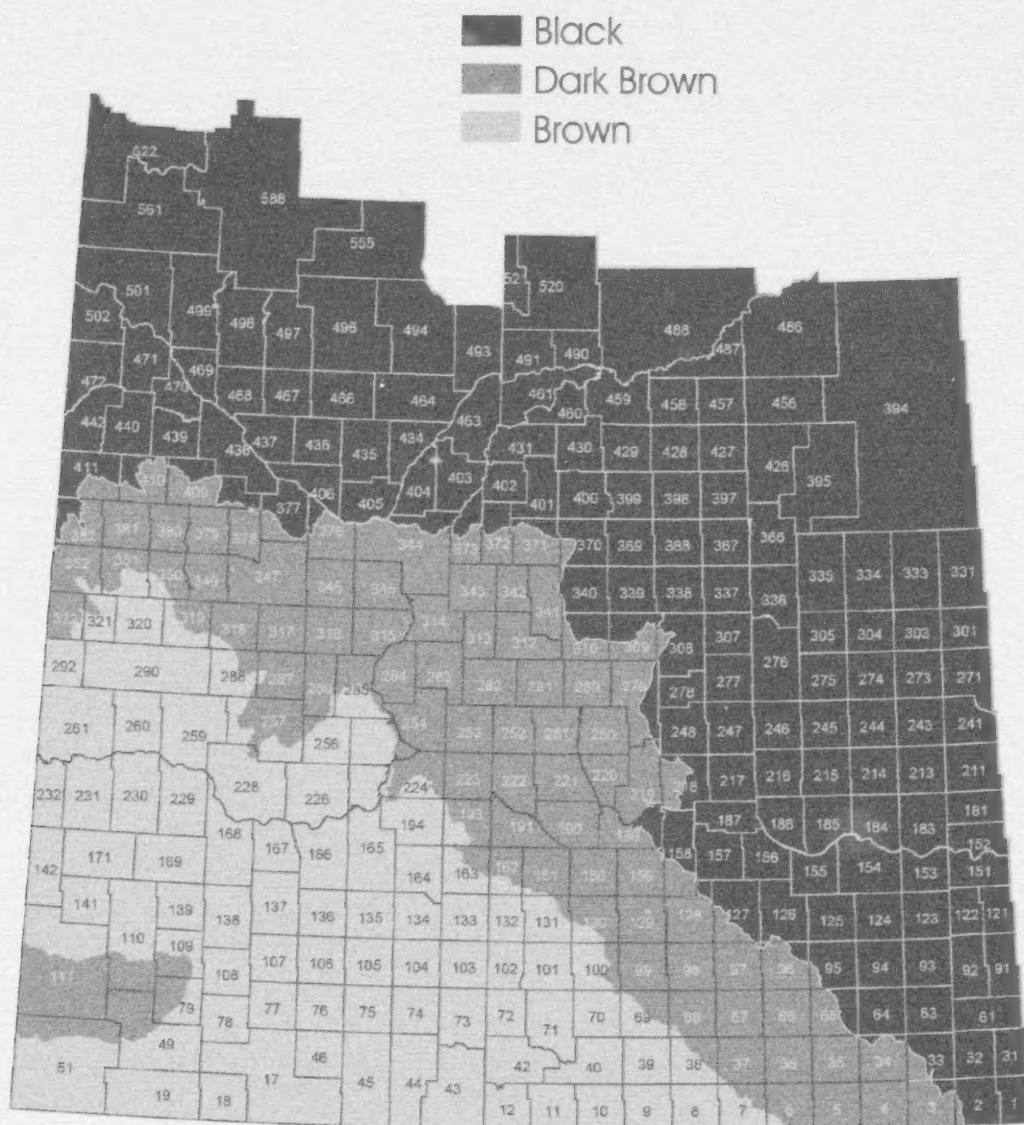
 Government  
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Saskatchewan

# CROP PLANNING GUIDE 2015

Each year, the Saskatchewan Ministry of Agriculture makes available the Crop Planning Guide to help producers estimate their costs of producing various crops.

Please remember that the Guide is an estimate and does not represent actual provincial average cost of production figures. The figures are meant to be used as a guide. Farm managers should use their own costs of production because costs and

yields on each farm differ due to the type and amount of equipment, the amount of chemical and fertilizer used, and the various agronomic practices used. Blank worksheets are provided at the end of the Guide for this purpose. For those who would prefer, a downloadable spreadsheet is available on the Ministry website at [www.agriculture.gov.sk.ca](http://www.agriculture.gov.sk.ca) (located in the Farm Management area, Production Economics, entitled "Crop Planner").



# GENERAL ASSUMPTIONS FOR ALL SOIL ZONES

**1. Crop prices** are based on harvest time futures prices and contract prices obtained as of December 2014. Prices become outdated very quickly. Producers must continually adjust these figures as seeding approaches.

**2. Crop yields** are increased by 20 per cent above long-term average yield for the soil zone from Saskatchewan Crop Insurance Corporation (SCIC) and Statistics Canada. Feed barley yields are increased an additional 10 per cent over malt barley yields. Crop yields are increased to reflect a higher level of management and higher input levels.

**3. Seeding rates** in the following are expressed in pounds per acre, with the exception of corn and soybeans. Seeding rate conversions to bushels per acre may be made by dividing the stated seeding rate by 60 pounds/bu. for all types of wheat and peas; 48 pounds/bu. for barley; and 32 pounds per acre for oats.

**4. Fertilizer: Nitrogen costs** are based on 46-0-0 at \$545/tonne or \$0.538/lb.; Phosphorus costs are based on 11-52-0 at \$740/tonne or \$0.532/lb.; Sulphur costs are based on 16-19-0-14 at \$583/tonne or \$0.553/lb. These prices can vary dramatically and producers are reminded to continually adjust these figures as seeding approaches. Fertilizer rates are based on nutrient removal contained in grain; adjust if straw is removed.

**5. Chemicals: Pesticide costs** are set using Suggested Retail Price (SRP) costs as well as full rate application. Weeds, insects and diseases being

controlled vary significantly from farm to farm and from soil zone to soil zone. The assumptions used are only to create a general cost for the guide. Producers must use their own costs based on the weed, insect and disease pressures they are controlling. Prices can also vary significantly from SRP rates.

**6. Machinery operating costs:** Fuel costs are based on estimated fuel consumptions for the various farming operations with diesel fuel priced at \$0.94/litre. Machinery repair rates are 4.5 per cent of machinery investment per year for pulse crops, flax, corn, soybean and sunflowers, and 3.5 per cent for all other crops.

**7. Custom work and hired labour** is made up of costs for custom farm operations, such as custom trucking and custom spraying. Skilled labour is assumed to be \$21 per hour for 2015.

**8. Crop Insurance premiums** are based on the yield levels used at a coverage level of 70 per cent with no discounts for experience.

**9. Utilities** are electricity, natural gas, water and telephone expenses.

**10. Interest on variable expenses:** Operating interest is calculated on all variable expenses at 4.2 per cent for eight months, 18 months for fallow and Winter Wheat.

**11. Building repair rates** are two per cent of building investment per acre.

**12. Business overhead** is made up of legal, accounting, insurance, licenses and miscellaneous.

**13. Machinery depreciation** is calculated at 10.7 per cent of machinery investment per year on a straight-line basis.

**14. Building depreciation** is calculated at five per cent per year on a straight line basis of building investment.

**15. Machinery investment** is calculated at a 6.5 per cent return on investment. It is assumed that a Brown Soil Zone farm has \$271.17 per cultivated acre invested in machinery; a Dark Brown Soil Zone farm has \$309.33 per cultivated acre invested in machinery; and a Black Soil Zone farm has \$353.75 per cultivated acre invested in machinery. Chem-fallow has only a portion of the machinery cost attributed to it. An additional machinery investment of \$57.83 per acre is assumed for corn.

**16. Building investment cost** is calculated at a three per cent return on investment. It is assumed that a Brown Soil Zone farm has \$21 per cultivated acre invested in buildings; a Dark Brown Soil Zone farm has \$27 per cultivated acre invested in buildings; and a Black Soil Zone farms has \$36 per cultivated acre invested in buildings.

**17. Land investment cost** is calculated at a 3.5 per cent return on investment of \$1,032 per cultivated acre in the Brown Soil Zone; \$1,117 per cultivated acre in the Dark Brown Soil Zone; and \$1,153 per cultivated acre in the Black Soil Zone.

**18. Labour and management:** These budgets do not include an estimate for owner/operator labour and management. Typical management rates for business of this type are seven per cent of Gross Revenue.



# BROWN SOIL ZONE 2015

## 1. Seed price and seeding rate:

Crop	Rate	Price
Spring Wheat	86 lb./ac.	\$0.115/lb
Durum Wheat	105 lb./ac.	\$0.189/lb
CPS Wheat	115 lb./ac.	\$0.087/lb
Winter Wheat	113 lb./ac.	\$0.095/lb
Malt Barley	106 lb./ac.	\$0.09/lb
Feed Barley	88 lb./ac.	\$0.072/lb
Oats	88 lb./ac.	\$0.074/lb.
Corn	29000 plants	\$0.0027/plant
Large Green Lentils	91 lb./ac.	\$0.414/lb.
Red Lentils	56 lb./ac.	\$0.313/lb.
Edible Yellow Peas	138 lb./ac.	\$0.13/lb
Edible Green Peas	137 lb./ac.	\$0.174/lb
Soybean	1.4 units	\$56.95/unit
Flax	34 lb./ac.	\$0.263/lb
Canola LL	5 lb./ac.	\$12.50/lb.
Canola RR	5 lb./ac.	\$12.30/lb.

## 2. Fertilizer:

### Fallow Crops:

	lb./ac.		
	N	P	S
Spring Wheat	30	22	0
Durum Wheat	30	25	0
Malt Barley	30	24	0
Flax	20	16	0
Canola LL	30	38	15

### Stubble Crops:

	lb./ac.		
	N	P	S
Spring Wheat	48	18	0
Durum Wheat	56	21	0
CPS Wheat	56	21	0
Winter Wheat	53	20	0
Malt Barley	47	20	0
Feed Barley	57	24	0
Oats	38	20	0
Corn	75	33	0
Large Green Lentils	6	20	0
Red Lentils	6	20	0
Yellow Peas	6	20	0
Green Peas	6	20	0
Soybean	6	20	0
Flax	39	15	0
Canola RR	53	30	10

## Fallow Seeded Crops

	Chem Fallow	Spring Wheat	Durum Wheat	Malt Barley	Flax	Canola
<b>REVENUE PER ACRE</b>						
Estimated Yield (bu./ac., lb./ac.) (A)		36.0	41.7	56.1	24.4	36.3
Estimated on Farm Market Price/bu., lb. (B)		6.11	6.12	4.50	11.81	9.48
Estimated Gross Revenue/ac (AxB)=(C)		219.96	255.20	252.45	288.16	344.12
<b>EXPENSES PER ACRE</b>						
Variable Expenses/acre						
Seed		9.89	19.85	9.54	8.94	62.50
Fertilizer - Nitrogen		16.14	16.14	16.14	10.76	16.14
- Phosphorus		11.70	13.30	12.77	8.51	20.22
- Sulphur and Other		0.00	0.00	0.00	0.00	8.30
Chemical - Herbicides	12.89	14.95	14.95	13.36	17.02	13.69
- Insecticides/Fungicides	0.00	2.04	2.04	0.00	0.00	3.23
- Seed Treatments/Innoculants	0.00	4.12	5.03	5.06	1.70	0.00
Machinery Operating - Fuel	1.88	12.78	12.78	12.78	12.78	13.54
- Repair	1.61	9.49	9.49	9.49	12.20	9.49
Custom Work and Hired Labour	0.00	18.25	18.25	16.75	16.75	17.00
Crop Insurance Premium	0.00	10.28	10.76	15.33	23.95	33.29
Utilities and Miscellaneous	3.17	3.17	3.17	3.17	3.17	3.17
Interest on Variable Expenses	1.23	3.16	3.52	3.20	3.24	5.62
Total Variable Expenses (D)	20.78	115.97	129.28	117.59	119.02	206.19
Other Expenses/acre						
Building Repair	0.42	0.42	0.42	0.42	0.42	0.42
Property Taxes	5.46	5.46	5.46	5.46	5.46	5.46
Business Overhead	1.56	1.56	1.56	1.56	1.56	1.56
Machinery Depreciation	4.92	29.02	29.02	29.02	29.02	29.02
Building Depreciation	1.05	1.05	1.05	1.05	1.05	1.05
Machinery Investment	2.99	17.63	17.63	17.63	17.63	17.63
Building Investment	0.63	0.63	0.63	0.63	0.63	0.63
Land Investment	37.03	37.03	37.03	37.03	37.03	37.03
Total Other Expenses (E)	54.06	92.80	92.80	92.80	92.80	92.80
Labour & Management (F)						
Total Expenses (D+E+F)=(G)	74.84	208.77	222.08	210.39	211.82	298.99
Summer Fallow Expense (H)		74.84	74.84	74.84	74.84	74.84
Total Rotation Expense (G+H)=(I)		283.61	296.92	285.23	286.66	373.83
<b>RETURN PER ACRE*</b>						
Return Over Variable Expenses (C-D)		83.21	105.14	114.08	148.36	117.15
Return Over Total Rotation Expenses (C-I)		-63.65	-41.72	-32.78	1.50	-29.71
<b>BREAK-EVEN YIELD PER ACRE*</b>						
To Cover Variable Expenses		22.38	24.52	30.75	11.84	23.94
To Cover Total Rotation Expenses		46.42	48.52	63.38	24.27	39.43
<b>BREAK-EVEN PRICE PER BU./LB.*</b>						
To Cover Variable Expenses		3.80	3.60	2.47	5.73	6.25
To Cover Total Rotation Expenses		7.88	7.12	5.08	11.75	10.30

\*Returns per acre, break-even yields and prices for fallow crops must include the previous year's fallow expenses. For

Stubble Seeded Crops														
Spring Wheat	Durum Wheat	CPS Wheat	Winter Wheat	Malt Barley	Feed Barley	Oats	Corn	Large Green Lentil	Red Lentil	Edible Yellow Peas	Edible Green Peas	Soybean	Flax	Canola
30.0	34.7	34.9	38.8	47.2	56.6	57.1	75.0	1312.2	1403.4	31.0	31.0	25.0	17.9	27.7
6.11	6.12	5.40	5.25	4.50	3.46	2.48	3.75	0.35	0.24	6.04	8.11	10.07	11.81	9.48
183.30	212.36	188.46	203.70	212.40	195.84	141.61	281.25	459.27	336.82	187.24	251.41	251.75	211.40	262.60
9.89	19.85	10.01	10.74	9.54	6.34	6.51	78.30	37.67	17.53	17.94	23.84	79.73	8.94	61.50
25.82	30.13	30.13	28.51	25.29	30.67	20.44	40.35	3.23	3.23	3.23	3.23	3.23	20.98	28.51
9.58	11.17	11.17	10.64	10.64	12.77	10.64	17.56	10.64	10.64	10.64	10.64	10.64	7.98	15.96
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.53
14.06	14.06	14.06	15.12	12.47	12.47	10.08	13.08	33.68	40.89	23.75	23.75	9.49	17.02	5.36
2.04	2.04	2.04	0.00	0.00	0.00	0.00	0.00	12.74	12.74	0.57	0.57	0.00	0.00	3.23
4.12	5.03	5.51	5.65	5.06	4.20	2.77	0.00	11.83	14.84	9.97	9.89	12.10	1.70	0.00
12.78	12.78	12.78	12.78	12.78	12.78	12.78	14.29	14.29	14.29	14.29	14.29	14.29	12.78	13.54
9.49	9.49	9.49	9.49	9.49	9.49	9.49	14.81	12.20	12.20	12.20	12.20	12.20	12.20	9.49
18.25	18.25	18.25	18.25	16.75	16.75	16.75	40.82	17.75	17.75	16.25	16.25	18.25	16.75	17.00
9.84	8.99	11.90	11.90	12.80	12.80	11.63		19.98	19.52	13.51	13.51	29.27	18.08	26.61
3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17	3.17
3.33	3.78	3.60	5.30	3.30	3.40	2.92	6.23	4.96	4.67	3.51	3.68	5.39	3.35	5.32
122.37	138.74	132.11	131.55	121.29	124.84	107.18	228.61	182.14	171.47	129.03	135.02	197.76	122.95	195.22
0.42	0.42	0.42	0.44	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42	0.42
5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46
1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
29.02	29.02	29.02	29.02	29.02	29.02	29.02	35.20	29.02	29.02	29.02	29.02	29.02	29.02	29.02
1.05	1.05	1.05	1.10	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
17.63	17.63	17.63	17.63	17.63	17.63	17.63	21.39	17.63	17.63	17.63	17.63	17.63	17.63	17.63
0.63	0.63	0.63	0.66	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63	0.63
37.03	37.03	37.03	37.03	37.03	37.03	37.03	37.03	37.03	37.03	37.03	37.03	37.03	37.03	37.03
92.80	92.80	92.80	92.90	92.80	92.80	92.80	102.74	92.80	92.80	92.80	92.80	92.80	92.80	92.80
215.17	231.54	224.91	224.45	214.09	217.64	199.98	331.35	274.94	264.27	221.83	227.82	290.56	215.75	288.02
215.17	231.54	224.91	224.45	214.09	217.64	199.98	331.35	274.94	264.27	221.83	227.82	290.56	215.75	288.02
60.93	73.62	56.35	72.15	91.11	71.00	34.43	52.64	277.13	165.35	58.21	116.39	53.99	88.45	67.38
-31.87	-19.18	-36.45	-20.75	-1.69	-21.80	-58.37	-50.10	184.33	72.55	-34.59	23.59	-38.81	-4.35	-25.42
20.03	22.67	24.46	25.06	26.95	36.08	43.22	60.96	520.40	714.46	21.36	16.65	19.64	10.41	20.59
35.22	37.83	41.65	42.75	47.58	62.90	80.64	88.36	785.54	1101.13	36.73	28.09	28.85	18.27	30.38
4.08	4.00	3.79	3.39	2.57	2.21	1.88	3.05	0.14	0.12	4.16	4.36	7.91	6.87	7.05
7.17	6.67	6.44	5.78	4.54	3.85	3.50	4.42	0.21	0.19	7.16	7.35	11.62	12.05	10.40

simplicity, we used 2014 (i.e forecast) chem fallow values.

# DARK BROWN SOIL ZONE 2015

## 1. Seed price and seeding rate:

Crop	Rate	Price
Spring Wheat	95 lb./ac.	\$0.115/lb
Durum Wheat	116 lb./ac.	\$0.189/lb
CPS Wheat	126 lb./ac.	\$0.087/lb
Winter Wheat	126 lb./ac.	\$0.095/lb
Malt Barley	116 lb./ac.	\$0.09/lb
Feed Barley	97 lb./ac.	\$0.072/lb
Oats	110 lb./ac.	\$0.074/lb.
Corn	29000 plants/ac	\$0.0027/plant
Large Green Lentils	91 lb./ac.	\$0.414/lb.
Red Lentils	56 lb./ac.	\$0.313/lb.
Edible Yellow Peas	158 lb./ac.	\$0.13/lb
Edible Green Peas	156 lb./ac.	\$0.174/lb
Soybean	1.4 units	\$56.95/unit
Flax	37 lb./ac.	\$0.263/lb
Canola LL	5 lb./ac.	\$12.50/lb.
Canola RR	5 lb./ac.	\$12.30/lb.

## 2. Fertilizer:

### Fallow Crops:

	lb./ac.		
	N	P	S
Spring Wheat	35	25	0
Durum Wheat	35	26	0
Malt Barley	30	26	0
Flax	25	16	0
Canola LL	35	38	20

### Stubble Crops:

	lb./ac.		
	N	P	S
Spring Wheat	67	25	0
Durum Wheat	69	26	0
CPS Wheat	72	27	0
Winter Wheat	70	26	0
Malt Barley	62	26	0
Feed Barley	68	29	0
Oats	52	20	0
Corn	85	37	0
Large Green Lentils	6	20	0
Red Lentils	6	20	0
Yellow Peas	6	23	0
Green Peas	6	23	0
Soybean	6	25	0
Flax	55	16	0
Canola RR	70	38	20

## Fallow Seeded Crops

	Chem Fallow	Spring Wheat	Durum Wheat	Malt Barley	Flax	Canola
<b>REVENUE PER ACRE</b>						
Estimated Yield (bu./ac./lb./ac.) (A)		42.0	43.1	61.9	24.9	36.3
Estimated on Farm Market Price/bu./lb. (B)		6.11	6.12	4.50	11.81	9.48
<b>Estimated Gross Revenue/ac. (AxB)=(C)</b>		<b>256.62</b>	<b>263.77</b>	<b>278.55</b>	<b>294.07</b>	<b>344.12</b>
<b>EXPENSES PER ACRE</b>						
<b>Variable Expenses/acre</b>						
Seed		10.93	21.92	10.44	9.73	62.50
Fertilizer - Nitrogen		18.83	18.83	16.14	13.45	18.83
- Phosphorus		13.30	13.83	13.83	8.51	20.22
- Sulphur and Other		0.00	0.00	0.00	0.00	11.06
Chemical - Herbicides	11.98	18.03	18.03	14.86	16.13	13.69
- Insecticides/Fungicides	0.00	1.63	1.63	0.00	0.00	3.23
- Seed Treatments/Inoculants	0.00	4.55	5.56	5.54	1.85	0.00
Machinery Operating - Fuel	1.88	15.98	15.98	15.98	15.98	16.92
- Repair	2.21	10.83	10.83	10.83	13.92	10.83
Custom Work and Hire - Labour	0.00	18.00	18.00	17.00	17.00	17.00
Crop Insurance Premium	0.00	11.28	11.14	13.54	17.17	24.51
Utilities and Miscellaneous	4.16	4.16	4.16	4.16	4.16	4.16
Interest on Variable Expenses	1.27	3.57	3.92	3.42	3.30	5.68
<b>Total Variable Expenses (D)</b>	<b>21.50</b>	<b>131.09</b>	<b>143.83</b>	<b>125.74</b>	<b>121.20</b>	<b>208.63</b>
<b>Other Expenses/acre</b>						
Building Repair	0.54	0.54	0.54	0.54	0.54	0.54
Property Taxes	6.16	6.16	6.16	6.16	6.16	6.16
Business Overhead	2.39	2.39	2.39	2.39	2.39	2.39
Machinery Depreciation	6.77	33.10	33.10	33.10	33.10	33.10
Building Depreciation	1.35	1.35	1.35	1.35	1.35	1.35
Machinery Investment	4.11	20.11	20.11	20.11	20.11	20.11
Building Investment	0.81	0.81	0.81	0.81	0.81	0.81
Land Investment	42.70	42.70	42.70	42.70	42.70	42.70
<b>Total Other Expenses (E)</b>	<b>64.83</b>	<b>107.16</b>	<b>107.16</b>	<b>107.16</b>	<b>107.16</b>	<b>107.16</b>
Labour & Management (F)						
<b>Total Expenses (D+E+F)=(G)</b>	<b>86.33</b>	<b>238.25</b>	<b>250.99</b>	<b>232.90</b>	<b>228.36</b>	<b>315.79</b>
Summer Fallow Total Cost (H)		86.33	86.33	86.33	86.33	86.33
<b>Total Rotation Expense (G+H)=(I)</b>		<b>324.58</b>	<b>337.32</b>	<b>319.23</b>	<b>314.69</b>	<b>402.12</b>
<b>RETURN PER ACRE*</b>						
Return Over Variable Expenses (C-D)		104.03	98.44	131.31	151.37	113.99
Return Over Total Rotation Expenses (C-I)		-67.96	-73.55	-40.68	-20.62	-58.00
<b>BREAK-EVEN YIELD PER ACRE*</b>						
To Cover Variable Expenses		24.97	27.01	32.72	12.08	24.28
To Cover Total Rotation Expenses		53.12	55.12	70.94	26.65	42.42
<b>BREAK-EVEN PRICE PER BU./LB.*</b>						
To Cover Variable Expenses		3.63	3.84	2.38	5.73	6.34
To Cover Total Rotation Expenses		7.73	7.83	5.16	12.64	11.08

\*Returns per acre, break-even yields and prices for fallow crops must include the previous year's fallow expenses. For s



Stubble Seeded Crops

Spring Wheat	Durum Wheat	CPS Wheat	Winter Wheat	Malt Barley	Feed Barley	Oats	Corn	Large Green Lentil	Red Lentil	Edible Yellow Peas	Edible Green Peas	Soybean	Flax	Canola
42.0	43.1	45.0	51.0	61.9	68.1	76.5	85.0	1422.0	1530.6	33.3	33.3	30.0	24.9	36.3
6.11	6.12	5.40	5.25	4.50	3.46	2.48	3.75	0.35	0.24	8.11	8.11	10.07	11.81	9.48
256.62	263.77	243.00	267.75	278.55	235.63	189.72	318.75	497.70	367.34	270.06	270.06	302.10	294.07	344.12
10.93	21.92	10.96	11.97	10.44	6.98	8.14	78.30	37.67	17.53	27.14	27.14	79.73	9.73	61.50
36.05	37.12	38.74	37.66	33.36	36.58	27.98	45.73	3.23	3.23	3.23	3.23	3.23	29.59	37.66
13.30	13.83	14.36	13.83	13.83	15.43	10.64	19.68	10.64	10.64	12.24	12.24	13.30	8.51	20.22
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.06
18.03	18.03	18.03	14.22	14.86	14.86	10.08	13.08	33.68	40.89	23.75	23.75	11.26	16.13	5.49
1.63	1.63	1.63	0.00	0.00	0.00	0.00	0.00	12.74	12.74	0.57	0.57	0.00	0.00	3.23
4.55	5.56	6.04	6.30	5.54	4.63	5.25	0.00	11.83	14.84	11.27	11.27	12.10	1.85	0.00
15.98	15.98	15.98	15.98	15.98	15.98	15.98	17.86	17.86	17.86	17.86	17.86	17.86	15.98	16.92
10.83	10.83	10.83	10.83	10.83	10.83	10.83	16.52	13.92	13.92	13.92	13.92	13.92	13.92	10.83
18.00	18.00	18.00	18.00	17.00	17.00	17.00	46.22	17.00	17.00	16.25	16.25	18.00	17.00	17.00
11.28	11.14	13.77	13.77	13.54	13.54	13.34	17.90	23.48	22.26	12.10	12.10	24.51	17.00	24.51
4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.16
4.05	4.43	4.27	6.16	3.91	3.92	3.46	7.26	5.21	4.90	3.99	3.99	5.55	3.75	5.95
148.79	162.63	156.77	152.88	143.45	143.91	126.86	266.71	191.42	179.97	146.48	146.48	203.62	137.62	218.53
0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16
2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39	2.39
33.10	33.10	33.10	33.10	33.10	33.10	33.10	39.29	33.10	33.10	33.10	33.10	33.10	33.10	33.10
1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
20.11	20.11	20.11	20.11	20.11	20.11	20.11	23.87	20.11	20.11	20.11	20.11	20.11	20.11	20.11
0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
42.70	42.70	42.70	42.70	42.70	42.70	42.70	42.70	42.70	42.70	42.70	42.70	42.70	42.70	42.70
107.16	107.16	107.16	107.16	107.16	107.16	107.16	117.11	107.16	107.16	107.16	107.16	107.16	107.16	107.16
255.95	269.79	263.93	260.04	250.61	251.07	234.02	383.82	298.58	287.13	253.64	253.64	310.78	244.78	325.69
255.95	269.79	263.93	260.04	250.61	251.07	234.02	383.82	298.58	287.13	253.64	253.64	310.78	244.78	325.69
107.83	101.14	86.23	114.87	135.10	91.72	62.86	52.04	306.28	187.37	123.58	123.58	98.48	156.45	125.59
0.67	-6.02	-20.93	7.71	27.94	-15.44	-44.30	-65.07	199.12	80.21	16.42	16.42	-8.68	49.29	18.43
24.35	26.57	29.03	29.12	31.88	41.59	51.15	71.12	546.91	749.88	18.06	18.06	20.22	11.65	23.05
41.89	44.08	48.88	49.53	55.69	72.56	94.36	102.35	853.09	1196.38	31.27	31.27	30.86	20.73	34.36
3.54	3.77	3.48	3.00	2.32	2.11	1.66	3.14	0.13	0.12	4.40	4.40	6.79	5.53	6.02
6.09	6.26	5.87	5.10	4.05	3.69	3.06	4.52	0.21	0.19	7.62	7.62	10.36	9.83	8.97

mplicity, we used 2014 (i.e forecast) chem fallow values.

# BLACK SOIL ZONE 2015

## 1. Seed price and seeding rate:

Crop	Rate	Price
Spring Wheat	108 lb./ac.	\$0.115/lb
CPS Wheat	144 lb./ac.	\$0.087/lb
Winter Wheat	135 lb./ac.	\$0.095/lb
Malt Barley	132 lb./ac.	\$0.09/lb
Feed Barley	110 lb./ac.	\$0.072/lb
Oats	132 lb./ac.	\$0.074/lb.
Corn	29000 plants/ac	\$0.0027/plant
Large Green Lentils	91 lb./ac.	\$0.414/lb.
Red Lentils	56 lb./ac.	\$0.313/lb.
Edible Yellow Peas	178 lb./ac.	\$0.13/lb
Edible Green Peas	176 lb./ac.	\$0.174/lb
Soybean	1.4 units	\$56.95/unit
Flax	39 lb./ac.	\$0.263/lb
Canola LL	5 lb./ac.	\$12.50/lb.
Canola RR	5 lb./ac.	\$12.30/lb.

## 2. Fertilizer:

### Fallow Crops:

	lb./ac.		
	N	P	S
Spring Wheat	40	28	0
Malt Barley	35	29	0
Flax	30	16	0
Canola LL	40	38	20

### Stubble Crops:

	lb./ac.		
	N	P	S
Spring Wheat	75	28	0
CPS Wheat	86	32	0
Winter Wheat	75	27	0
Malt Barley	68	29	0
Feed Barley	75	31	0
Oats	64	24	0
Corn	100	44	0
Large Green Lentils	6	20	0
Red Lentils	6	20	0
Yellow Peas	6	24	0
Green Peas	6	24	0
Soybean	6	25	0
Flax	54	16	0
Canola RR	70	38	20

	Fallow Seeded Crops				
	Chem Fallow	Spring Wheat	Malt Barley	Flax	Canola
<b>REVENUE PER ACRE</b>					
Estimated Yield (bu./ac. lb./ac.) (A)		46.9	67.9	24.7	36.6
Estimated on Farm Market Price/bu. lb. (B)		6.11	4.50	11.81	9.48
<b>Estimated Gross Revenue/ac (AxB)=(C)</b>		<b>286.56</b>	<b>305.55</b>	<b>291.71</b>	<b>346.97</b>
<b>EXPENSES PER ACRE</b>					
<b>Variable Expenses/acre</b>					
Seed		12.42	11.75	10.26	62.50
Fertilizer - Nitrogen		21.52	18.83	16.14	21.52
- Phosphorus		14.90	15.43	8.51	20.22
- Sulphur and Other		0.00	0.00	0.00	11.06
Chemical - Herbicides	13.80	18.03	14.86	16.54	13.69
- Insecticides/Fungicides	0.00	2.04	0.00	0.00	1.62
- Seed Treatments/Innoculants	0.00	5.17	6.30	1.95	0.00
Machinery Operating - Fuel	1.88	19.98	19.98	19.98	21.15
- Repair	2.74	12.38	12.38	15.92	12.38
Custom Work and Hired Labour	0.00	19.00	17.00	17.00	17.00
Crop Insurance Premium	0.00	14.27	12.72	19.04	22.65
Utilities and Miscellaneous	4.80	4.80	4.80	4.80	4.80
Interest on Variable Expenses	1.46	4.05	3.75	3.64	5.84
<b>Total Variable Expenses (D)</b>	<b>24.68</b>	<b>148.56</b>	<b>137.80</b>	<b>133.78</b>	<b>214.43</b>
<b>Other Expenses/acre</b>					
Building Repair	0.72	0.72	0.72	0.72	0.72
Property Taxes	6.91	6.91	6.91	6.91	6.91
Business Overhead	2.81	2.81	2.81	2.81	2.81
Machinery Depreciation	8.37	37.85	37.85	37.85	37.85
Building Depreciation	1.80	1.80	1.80	1.80	1.80
Machinery Investment	5.08	22.99	22.99	22.99	22.99
Building Investment	1.08	1.08	1.08	1.08	1.08
Land Investment	41.23	41.23	41.23	41.23	41.23
<b>Total Other Expenses (E)</b>	<b>68.00</b>	<b>115.39</b>	<b>115.39</b>	<b>115.39</b>	<b>115.39</b>
Labour & Management (F)					
<b>Total Expenses (D+E+F)=(G)</b>	<b>92.68</b>	<b>263.95</b>	<b>253.19</b>	<b>249.17</b>	<b>329.82</b>
Summer Fallow Expense (H)		92.68	92.68	92.68	92.68
<b>Total Rotation Expense (G+H)=(I)</b>		<b>356.63</b>	<b>345.87</b>	<b>341.85</b>	<b>422.50</b>
<b>RETURNS PER ACRE*</b>					
Return over Variable Expenses (C-D)		113.32	143.07	133.25	107.86
Return over Total Rotation Expenses (C-I)		-70.07	-40.32	-50.14	-75.53
<b>BREAK-EVEN YIELD PER ACRE*</b>					
To Cover Variable Expenses		28.35	36.11	13.42	25.22
To Cover Total Rotation Expenses		58.37	76.86	28.95	44.57
<b>BREAK-EVEN PRICE PER BU./LB.*</b>					
To Cover Variable Expenses		3.69	2.39	6.42	6.53
To Cover Total Rotation Expenses		7.60	5.09	13.84	11.54

\*Returns per acre, break-even yields and prices for fallow seeded crops must include the previous year's fallow expenses



Stubble Seeded Crops													
Spring Wheat	CPS Wheat	Winter Wheat	Malt Barley	Feed Barley	Oats	Corn	Large Green Lentil	Red Lentil	Edible Yellow Peas	Edible Green Peas	Soybean	Flax	Canola
46.9	52.6	54.8	67.9	74.7	93.8	100.0	1188.0	1296.0	34.9	34.9	30.0	24.7	36.6
6.11	5.40	5.25	4.50	3.46	2.48	3.75	0.35	0.24	6.04	8.11	10.07	11.81	9.48
286.56	284.04	287.70	305.55	258.46	232.62	375.00	415.80	311.04	210.80	283.04	302.10	291.71	346.97
12.42	12.53	12.83	11.75	7.92	9.77	78.30	37.67	17.53	23.14	30.62	79.73	10.26	61.50
40.35	46.27	40.35	36.58	40.35	34.43	53.80	3.23	3.23	3.23	3.23	3.23	29.05	37.66
14.90	17.02	14.36	15.43	16.49	12.77	23.41	10.64	10.64	12.77	12.77	13.30	8.51	20.22
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.06
18.03	18.03	15.12	14.86	14.86	10.08	13.08	34.09	40.89	26.03	26.03	13.08	16.54	5.36
2.04	2.04	0.00	0.00	0.00	0.00	0.00	18.49	18.49	0.57	0.57	0.00	0.00	1.62
5.17	6.90	6.75	6.30	5.25	4.16	0.00	11.83	14.84	12.86	12.71	12.10	1.95	0.00
19.98	19.98	19.98	19.98	19.98	19.98	22.33	22.33	22.33	22.33	22.33	22.33	19.98	21.15
12.38	12.38	12.38	12.38	12.38	12.38	18.52	15.92	15.92	15.92	15.92	15.92	15.92	12.38
19.00	19.00	19.00	17.00	17.00	17.00	52.86	18.75	18.75	16.25	16.25	19.00	17.00	17.00
14.27	19.66	20.93	12.72	12.72	15.52	21.63	20.75	22.54	15.22	15.22	22.65	18.47	22.65
4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80	4.80
4.57	5.00	6.99	4.25	4.25	3.94	8.08	5.56	5.32	4.29	4.49	5.77	3.99	6.03
167.91	183.61	173.49	156.05	156.00	144.83	296.81	204.06	195.28	157.41	164.94	211.91	146.47	221.43
0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91
2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81	2.81
37.85	37.85	37.85	37.85	37.85	37.85	44.04	37.85	37.85	37.85	37.85	37.85	37.85	37.85
1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
22.99	22.99	22.99	22.99	22.99	22.99	26.75	22.99	22.99	22.99	22.99	22.99	22.99	22.99
1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08
41.23	41.23	41.23	41.23	41.23	41.23	41.23	41.23	41.23	41.23	41.23	41.23	41.23	41.23
115.39	115.39	115.39	115.39	115.39	115.39	125.34	115.39	115.39	115.39	115.39	115.39	115.39	115.39
283.30	299.00	288.88	271.44	271.39	260.22	422.15	319.45	310.67	272.80	280.33	327.30	261.86	336.82
283.30	299.00	288.88	271.44	271.39	260.22	422.15	319.45	310.67	272.80	280.33	327.30	261.86	336.82
118.65	100.43	114.21	149.50	102.46	87.79	78.19	211.74	115.76	53.39	118.10	90.19	145.24	125.54
3.26	-14.96	-1.18	34.11	-12.93	-27.60	-47.15	96.35	0.37	-62.00	2.71	-25.20	29.85	10.15
27.48	34.00	33.05	34.68	45.09	58.40	79.15	583.03	813.67	26.06	20.34	21.04	12.40	23.36
46.37	55.37	55.02	60.32	78.44	104.93	112.57	912.71	1294.46	45.17	34.57	32.50	22.17	35.53
3.58	3.49	3.17	2.30	2.09	1.54	2.97	0.17	0.15	4.51	4.73	7.06	5.93	6.05
6.04	5.68	5.27	4.00	3.63	2.77	4.22	0.27	0.24	7.82	8.03	10.91	10.60	9.20

es. For simplicity, we used 2014 (i.e. forecast) chem fallow values.

# SPECIALTY CROPS 2015

## 1. Seed price and seeding rate:

	Soil zone	Rate	Price
Buckwheat	Dk Brown	53lb./ac.	\$0.45/lb.
Camelina	Brown	6 lb./ac.	\$2.75/lb.
Canaryseed	Dk Brown	37 lb./ac.	\$0.32/lb.
Caraway	Black	12 lb./ac.	\$0.95/lb.
DesiChickpea	Brown	93 lb./ac.	\$0.18/lb.
Kabuli Chickpea (9 mm)	Brown	145 lb./ac.	\$0.29/lb.
Kabuli Chickpea (7 mm)	Brown	109 lb./ac.	\$0.17/lb.
Coriander	Dk Brown	25 lb./ac.	\$0.75/lb.
Dill	Black	8 lb./ac.	\$0.75/lb.
Fababean	Black	181 lb./ac.	\$0.20/lb.
Fenugreek	Brown	30 lb./ac.	\$0.40/lb.
Yellow Mustard	Brown	10 lb./ac.	\$1.65/lb.
Oriental Mustard	Brown	6 lb./ac.	\$1.64/lb.
Brown Mustard	Brown	6 lb./ac.	\$1.58/lb.
Pinto Bean	Dk Brown	99 lb./ac.	\$0.63/lb.
Sunflower (LMTS)	Dk Brown	19000 plants	\$0.0013
Sunflower (EMSS)	Dk Brown	19000 plants	\$0.00190
Quinoa	Black	10 lbs/ac	\$4.00/bu.

## 4. Fertilizer:

	lb./ac.		
	N	P	S
Buckwheat	25	20	0
Camelina	60	30	20
Canaryseed	35	30	0
Caraway	100	20	0
Desi Chickpea	6	20	0
Kabuli Chickpea (9 mm)	6	20	0
Kabuli Chickpea (7 mm)	6	20	0
Coriander	35	20	0
Dill	30	20	0
Fababean	6	24	0
Fenugreek	6	16	0
Yellow Mustard	28	15	10
Oriental Mustard	32	17	10
Brown Mustard	31	17	10
Pinto Bean	47	15	0
Sunflower (LMTS)	37	11	0
Sunflower (EMSS)	35	10	0
Quinoa	70	30	0

CROP	Buckwheat	Camelina	Canaryseed	Caraway**	#1 Desi Chickpea
Type of Rotation	Fallow***	Re-crop	Re-crop	Re-crop	Re-crop
Rotation Years Required to Grow this Crop	2	1	1	3	1
Soil Zone	DkBrown	Brown	DkBrown	Black	Brown
REVENUE PER ACRE					
Estimated Yield (bu./ac., lb./ac.) (A)	610.00	1198.80	1111.20	1154.40	1152.80
Est. On Farm Market Price/bu., lb. (B)	0.26	0.18	0.24	0.58	0.16
Estimated Gross Revenue/ac (AxB)=C	158.60	215.78	266.69	669.55	180.99
EXPENSES PER ACRE					
Variable Expenses/acre					
Seed	23.85	16.50	11.84	11.40	16.76
Fertilizer - Nitrogen	13.45	32.28	18.83	53.80	3.23
- Phosphorous	10.64	15.96	15.96	10.64	10.64
- Sulphur and Other	0.00	11.06	0.00	0.00	0.00
Chemical*** - Herbicides/Fungicides	9.12	10.50	30.59	21.86	37.20
- Insecticides	0.00	0.00	7.08	0.00	0.00
- Seed Treatment/Inoculant	2.65	0.00	0.00	0.60	12.57
Machinery Operating - Fuel	17.86	19.74	18.80	37.60	20.68
- Repair	10.83	9.49	10.83	24.76	12.20
Custom Work and Hired Labour	15.75	16.25	18.00	15.75	15.75
Crop Insurance Premium	0.00	6.62	19.24	33.12	34.34
Utilities and Miscellaneous	4.16	4.16	4.16	9.60	4.16
Interest on Variable Expenses	3.03	3.99	4.35	12.28	4.69
Total Variable Expenses (D)	111.34	146.55	159.68	231.41	172.22
Other Expenses/acre					
Building Repair	0.54	0.42	0.54	1.44	0.42
Property Taxes	6.16	5.46	6.16	13.82	5.46
Business Overhead	2.39	1.56	2.39	5.62	1.56
Machinery Depreciation	33.10	29.02	33.10	75.70	29.02
Building Depreciation	1.35	1.05	1.35	3.60	1.05
Machinery Investment	20.11	17.63	20.11	45.98	17.63
Building Investment	0.81	0.63	0.81	2.16	0.63
Land Investment	42.70	37.03	42.70	82.46	37.03
Total Other Expenses (E)	107.16	92.80	107.16	230.78	92.80
Labour and Management (F)					
Total Expenses (D+E+F)=(G)	218.50	239.35	266.84	462.19	265.02
Fallow Variable Cost (H)****	21.50	0.00	0.00	0.00	0.00
Fallow Total Expense (I)****	86.33	0.00	0.00	0.00	0.00
Total Rotation Expense (G+I)=(J)	304.83	239.35	266.84	462.19	265.02
RETURNS PER ACRE					
Return over Variable Expenses (C-D-H)	25.76	69.23	107.01	438.14	8.77
Return over Total Rotation Expenses (C-J)	-146.23	-23.57	-0.15	207.36	-84.03
BREAK-EVEN YIELD (lbs. or bu. per acre)					
To Cover Variable Expenses	510.92	814.17	665.33	199.49	1096.94
To Cover Total Rotation Expenses	1172.42	1329.72	1111.83	398.44	1688.03
BREAK-EVEN PRICE (per lb. or bu.)					
To Cover Variable Expenses	0.22	0.12	0.14	0.10	0.15
To Cover Total Rotation Expenses	0.50	0.20	0.24	0.20	0.23

\* Yield and costs are for Dryland Pinto Beans only.

\*\*Expenses shown are from two years (year 1 and 2) and revenue is from two years (year 2 and 3) of Caraway seed production per year. The expenses associated with the cover crop in year 1 are covered by the revenue from the cover crop. \*\*\* Only r

#1-9mm Kabuli	#1-7mm Kabuli			Fababean		Yellow	Oriental	Brown	Pinto	Sunflower	Sunflower	
Chickpea	Chickpea	Coriander	Dill	(feed)	Fenugreek	Mustard	Mustard	Mustard	Bean*	(LMTS)	(EMSS)	Quinoa
Re-crop 1	Re-crop 1	Re-crop 1	Fallow 1	Re-crop 2	Fallow 2	Re-crop 1	Re-crop 1	Re-crop 1	Fallow**** 2	Re-crop 1	Re-crop 1	Re-crop 1
Brown	Brown	DkBrown	Black	Black	Brown	Brown	Brown	Brown	DkBrown	DkBrown	DkBrown	Black
1314.00	1403.60	799.20	800.00	1366.00	900.00	717.00	831.00	807.00	1341.60	1357.80	1283.40	1000.00
0.26	0.19	0.38	0.45	0.13	0.14	0.26	0.25	0.21	0.30	0.19	0.19	0.60
345.58	266.68	303.70	360.00	182.09	126.00	183.55	206.09	165.44	402.48	263.41	248.98	600.00
42.02	18.58	18.75	6.00	36.28	11.84	16.50	9.02	9.01	62.24	25.27	36.10	40.00
3.23	3.23	18.83	16.14	3.23	3.23	15.06	17.22	16.68	25.29	19.91	18.83	37.66
10.64	10.64	10.64	10.64	12.77	8.51	7.98	9.04	9.04	7.98	5.85	5.32	15.96
0.00	0.00	0.00	0.00	0.00	0.00	5.53	5.53	5.53	0.00	0.00	0.00	0.00
59.17	37.20	48.00	47.60	19.62	19.62	26.56	15.79	15.79	40.31	33.52	33.52	1.77
0.00	0.00	0.00	0.00	0.00	0.00	1.62	1.62	1.62	0.00	1.37	1.37	0.00
26.81	20.22	1.25	0.00	23.58	2.96	0.00	0.00	0.00	25.22	0.00	0.00	0.00
20.68	20.68	18.80	15.98	20.68	15.98	19.74	19.74	19.74	17.86	20.68	20.68	15.98
12.20	12.20	10.83	12.38	15.92	9.49	9.49	9.49	9.49	13.92	13.92	13.92	12.38
15.75	15.75	15.75	15.75	15.75	15.75	16.25	16.25	16.25	15.75	16.75	16.75	15.75
51.28	40.90	21.40	0.00	16.30	0.00	21.43	14.90	17.79	26.30	26.59	26.29	20.93
4.16	4.16	4.16	4.80	4.80	4.16	4.16	4.16	4.16	4.16	4.16	4.16	4.80
6.89	5.14	4.72	3.62	4.73	2.56	4.04	3.44	3.50	6.69	4.70	4.95	4.63
252.83	188.70	173.13	132.91	173.66	94.10	148.36	126.20	128.60	245.72	172.72	181.89	169.86
0.42	0.42	0.54	0.72	0.72	0.42	0.42	0.42	0.42	0.54	1.35	0.54	0.72
5.46	5.46	6.16	6.91	6.91	5.46	5.46	5.46	5.46	6.16	6.16	6.16	6.91
1.56	1.56	2.39	2.81	2.81	1.56	1.56	1.56	1.56	2.39	2.39	2.39	2.81
29.02	29.02	33.10	37.85	37.85	29.02	29.02	29.02	29.02	33.10	33.10	33.10	37.85
1.05	1.05	1.35	1.80	1.80	1.05	1.05	1.05	1.05	1.35	1.35	1.35	1.80
17.63	17.63	20.11	22.99	22.99	17.63	17.63	17.63	17.63	20.11	20.11	20.11	22.99
0.63	0.63	0.81	1.08	1.08	0.63	0.63	0.63	0.63	0.81	0.81	0.81	1.08
37.03	37.03	42.70	41.23	41.23	37.03	37.03	37.03	37.03	42.70	42.70	42.70	41.23
92.80	92.80	107.16	115.39	115.39	92.80	92.80	92.80	92.80	107.16	107.97	107.16	115.39
345.63	281.50	280.29	248.30	289.05	186.90	241.16	219.00	221.40	352.88	280.69	289.05	285.25
0.00	0.00	0.00	24.68	0.00	20.78	0.00	0.00	0.00	21.50	0.00	0.00	0.00
0.00	0.00	0.00	92.68	0.00	74.84	0.00	0.00	0.00	86.33	0.00	0.00	0.00
345.63	281.50	280.29	340.98	289.05	261.74	241.16	219.00	221.40	439.21	280.69	289.05	285.25
92.75	77.98	130.57	202.41	8.43	11.12	35.19	79.89	36.84	135.26	90.69	67.09	430.14
-0.05	-14.82	23.41	19.02	-106.96	-135.74	-57.61	-12.91	-55.96	-36.73	-17.28	-40.07	314.75
961.33	993.16	455.61	350.20	1302.78	820.57	579.53	508.87	627.32	890.73	890.31	937.58	283.10
1314.18	1481.58	737.61	757.73	2168.42	1869.57	942.03	883.06	1080.00	1464.03	1446.86	1489.95	475.42
0.19	0.13	0.22	0.20	0.13	0.13	0.21	0.15	0.16	0.20	0.13	0.14	0.17
0.26	0.20	0.35	0.43	0.21	0.29	0.34	0.26	0.27	0.33	0.21	0.23	0.29

on. To obtain the average return per acre per year, the figures per acre should be divided by 2. For example, the return over total rotational expenses is \$284.16 divided by 2 equals \$142.08.  
 1. Registered chemicals are included. \*\*\*\* For fallow crops, include variable and total costs from the appropriate soil zone fallow costs.



# SPECIALTY CROP AGRONOMIC INFORMATION 2015 CROP

Crop	Type	lb/bu	Adaptation	Seed Rate (lb/ac)	Est. Seeds per lb	Weed Control	Crop Height inches
Buckwheat	Annual grain	48	Widely adapted but sensitive to frost anytime and heat and drought during seed set.	35 - 55	13,000 - 16,000	Several herbicides registered for grassy weed control.	40 - 60
Camelina	Annual oilseed	50	Well adapted to Saskatchewan conditions. It is highly tolerant of heat and drought, cold tolerant, matures early, very suitable for warm and dry regions.	5	300,000	Assure II herbicide (quizalofop-P ethyl) is registered under the User Requested Minor-Use Label Expansion Program. The most effective weed control is to seed early and seed into a clean field.	35
Canaryseed	Annual birdseed	50	Moderate moisture requirements, shallow rooted.	22 - 35	65,000	Several herbicides registered.	40 - 60
Caraway	Biennial spice	35	Widely adapted, yields best under moderate moisture.	10	90,000	Several herbicides are registered.	12 - 28
Desi Chickpea	Annual pulse	60	Indeterminate crop, Brown and Dark Brown soils.	80 - 90	1,350 - 2,300	Several registered herbicides.	12 - 20
Kabuli Chickpea 9mm	Annual pulse	60	Indeterminate crop, Brown soils. Seed after soil reaches 10°C at seeding depth.	120 - 180	1,100 - 2,000	Several registered herbicides.	14 - 20
Kabuli Chickpea 7mm	Annual pulse	60	Indeterminate crop, Brown soils. Seed after soil reaches 10°C at seeding depth.	100 - 110	1,200 - 2,200	Several registered herbicides.	14 - 20
Coriander	Annual spice	22	Heat loving, late maturing.	25	50,000	Several herbicides are registered.	24 - 40
Dill	Annual spice	27	Highest yield in cool conditions, moderate moisture.	5 - 9	90,000	Lorox and Edge are registered herbicides.	40
Fababean	Annual pulse	60	High moisture areas or irrigation.	120 - 180	800 - 1,350	Several herbicides registered.	40 - 60
Fenugreek	Annual legume	60	Indeterminate crop, Brown and Dark Brown soil zones. Late maturing.	22 - 30	23,000 - 27,000	Odyssey, Select and Centurion herbicides are registered. Use clean fields.	12 - 24
Yellow Mustard	Annual oilseed	50	Better seed quality in drier areas.	9 - 12	100,000	Several registered herbicides.	30 - 40
Brown Mustard	Annual oilseed	50	More heat and drought tolerant than canola.	7 - 10	200,000	Several registered herbicides.	40 - 48
Oriental Mustard	Annual oilseed	50	More heat and drought tolerant than canola.	5 - 9	200,000	Several registered herbicides.	40 - 48
Pinto Bean narrow row and dry land	Annual pulse	60	Heat and moisture loving. Seed in late May. No frost tolerance.	80 - 140	1,100 - 1,600	Several registered herbicides. Seed treatment recommended.	12 - 20
Standard Sunflower	Annual oilseed	30	High heat requirements, South-east Saskatchewan.	5	4,500 - 6,800	Trifluralin, Edge and Select are registered herbicides.	60
Early Short Statured Sunflower	Annual oilseed	30	Moderate heat requirements. Brown, Dark Brown and Thin Black soils.	7 - 10	11,000 - 13,500	Trifluralin, Edge and Select are registered herbicides.	24 - 35
Quinoa	Annual Pseudo-Cereal	50	Well adapted to areas near or north of the yellowhead highway. Sensitive to early frost and heat and drought during seed set	10	100,000	No Herbicides, fungicides or pesticides are registered	33-40

Days to Maturity	Harvest Method	Safe Storage Moisture	Crop Quality Factors	Markets	Expected Yield Range (lb/ac)
80 - 90	Swath when 75 per cent mature.	< 16%	Tan coloured seed, do not mix old (reddish-brown dehulled) and new (greenish dehulled) crop.	Human food	550 - 700
85 - 100	Direct combine or swath and combine. Direct combining is recommended due to potential damage from wind and because shattering losses are minimal. If swathing is necessary, it should be done when 75 per cent of the crop has turned yellow.	< 8%	Orange/brown seeds borne in pear shaped capsules.	Industrial oil	1,000 - 1,500
95 - 105	Swath and combine or direct combine. Shatter resistant.	< 13%	Avoid dehulling the seed.	Birdseed	700 - 1,050
Biennial, matures in early August	Swath when approximately 75 per cent of seeds have turned brown.	< 10%	Brown with dark stripes. Avoid green seed.	Flavouring	450 - 700
110 - 120	Direct combine or swath and combine.	< 14%	Sound whole seed, avoid seed damage.	Human food	1,050 - 1,450
110 - 125	Direct combine or swath and combine.	< 14%	Sound whole seed, avoid seed damage. Light coloured seed coat, green seed.	Human food	900 - 1,300
110 - 120	Direct combine or swath and combine.	< 14%	Sound whole seed, avoid seed damage. Light coloured seed coat, green seed.	Human food	1,000 - 1,400
95 - 110	Direct combine or swath then immediately combine.	< 10%	Fully mature brown seeds, splits below five per cent.	Flavourings and perfumes	550 - 800
105 - 115	Swath and combine or direct cut	< 10%	Clean seed, oil content.	Flavouring	270 - 1,000
110 - 120	Swath and combine or Direct -cut	< 16%	Avoid splitting and cracking.	High protein feed	1,000 - 1,600
115 - 130	Resists shattering, direct combine or swath and combine.	< 12%	Golden coloured seed.	Spice ingredient, pharmaceutical, health food	550 - 900
90 - 93	Direct combine or swath and combine.	< 9.5%	Bright yellow seed.	Condiment	550 - 700
91 - 94	Swath and combine.	< 9.5%	Dark reddish brown seed.	Condiment	620 - 900
91 - 93	Swath and combine.	< 9.5%	Bright golden seed.	Condiment	620 - 900
95 - 112	Pick-up reel and floating cutter bar required. Swathing preferred. Swath when tough.	14 - 16%	Sound whole seed, avoid seed damage.	Human food	800 - 1,500 Dry land
110 - 125	Direct combine with sunflower attachment.	< 10%	Premiums for high oil content.	Edible oil and confection	700 - 1,000
99 - 103	Swath and combine or direct combine with standard equipment.	< 10%	Premiums for high oil content.	Edible oil and birdseed	700 - 1,000
90-125	Direct combine or swath and combine. Sprouts easily in the swath.	< 10%	Cannot be planted following wheat or canola	Food. All Production is Contracted	750-1250

CROP PRODUCTION COSTS (\$/ACRE) MY FARM	USE THIS WORKSHEET TO ADJUST THE CROP BUDGETS TO YOUR FARM COSTS			
<b>REVENUE PER ACRE</b>				
A Estimated yield (bu./ac.; lb./ac.)				
B Estimated on-farm market price per bushel or per pound				
<b>C Estimated Gross Revenue per acre</b>				
<b>EXPENSES PER ACRE</b>				
Variable Expenses per acre				
Seed				
Fertilizer: Nitrogen				
Phosphorus				
Sulphur and Other				
Chemical: Herbicides/Fungicides				
Insecticides				
Seed Treatment/Innoculant				
Machinery Operating: Fuel				
Repair				
Custom Work and Hired Labour				
Crop Insurance Premium				
Utilities and Miscellaneous				
Interest on Variable Expenses				
<b>D Total Variable Expenses per acre</b>				
Other Expenses per acre				
Building Repair				
Property Taxes				
Business Overhead				
Machinery Depreciation				
Building Depreciation				
Machinery Investment				
Building Investment				
Land Investment				
<b>E Total Other Expenses</b>				
<b>F Labour and Management*</b>				
<b>G Total Expenses per acre (D+E+F)</b>				
<b>H Summerfallow cost</b>				
<b>I Total Rotation Expense (G+H)</b>				
<b>RETURNS PER ACRE</b>				
Return over Variable Expenses (C-D)				
Return over Total Rotational Expenses (C-I)				
<b>BREAK-EVEN YIELD PER ACRE</b>				
(lb./ac. or bu./ac.)**				
To Cover Variable Expenses				
To Cover Total Rotation Expenses				
<b>BREAK-EVEN PRICE</b>				
(per bushel or per pound)**				
To Cover Variable Expenses				
To Cover Total Rotation Expenses				

\* These budgets do not include an estimate for owner/operator labour and management. Farm managers need to determine their own actual labour and management costs and add it to total expenses.

\*\* The break-even yields and prices for summerfallow crops should include the previous year's tillage fallow expenses.

An electronic version of this spreadsheet is available at [www.agriculture.gov.sk.ca](http://www.agriculture.gov.sk.ca). To download, search for "Crop Planner".



# 2015 CROP ROTATION WORKSHEET

There is value in looking at the effect of rotations on your long-term profitability. This tool looks at the net returns per rotation acre. The example shown here is based on estimates from the Dark Brown soil zone. The actual costs and returns should be based on your own projections. Show the complete rotation from the first year to the last year.

This worksheet shows both 'returns over total expenses' and 'returns over variable expenses'. Note that in year 1, the summerfallow costs are included in 'canola on fallow'.

## Crop Rotation Returns

	Example - Rotation 1: Black Soil Zone			Rotation 2			Rotation 3			Rotation 4		
	Crop	Return over Total Expenses \$/acre	Return over Variable Expenses \$/acre	Crop	Return over Total Expenses \$/acre	Return over Variable Expenses \$/acre	Crop	Return over Total Expenses \$/acre	Return over Variable Expenses \$/acre	Crop	Return over Total Expenses \$/acre	Return over Variable Expenses \$/acre
Year 1	Oats (on stubble)	-12.93	102.46	Spring Wheat (on stubble)	-75.53	107.86						
Year 2	Spring Wheat (on stubble)	-75.53	107.86	Large Green Lentil (on stubble)	-47.15	78.19						
Year 3	Large Green Lentil (on stubble)	-47.15	78.19	CPS Wheat (on stubble)	3.26	118.65						
Year 4	Canola (on stubble)	29.85	145.24	Canola (on stubble)	29.85	145.24						
Year 5												
Year 6												
Total Returns		-105.76	433.75		-89.57	449.94						
Number years in rotation		4	4		4	4						
Return per rotation acre per year		-26.44	108.44		-22.39	112.49						

**For more information contact:**  
**Saskatchewan Agriculture Regional Offices**

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<b>Kindersley</b> 306-463-5513	<b>Outlook</b> 306-867-5575	<b>Swift Current</b> 306-778-8285	<b>Watrous</b> 306-946-3230
<b>Moose Jaw</b> 1-866-457-2377	<b>Prince Albert</b> 306-953-2363	<b>Tisdale</b> 306-878-8843	<b>Weyburn</b> 306-848-2857
<b>North Battleford</b> 306-446-7962			<b>Yorkton</b> 306-786-1531

**Agriculture Knowledge Centre (Toll Free): 1-866-457-2377**

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You may also contact us to make an appointment at one of our  
Regional Satellite Offices:

<b>Assiniboia</b> 1-866-457-2377	<b>Lloydminster</b> 306-446-7962	<b>Moosomin</b> 306-786-1531	<b>Shaunavon</b> 306-778-8285
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**Saskatchewan Ministry of Agriculture**

For more information, contact your nearest Regional Office or call the Agriculture Knowledge Centre

**Toll-Free: 1-866-457-2377**



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Printed January 2015  
4M ISSN 08840-9447 0210